

Waste Isolation Pilot Plant Environmental Management System Description

U. S. Department of Energy

Revision 5



This document supersedes DOE/WIPP-05-3318, Rev. 4.

Waste Isolation Pilot Plant Environmental Management System Description

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CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
2	01/28/10	<ul style="list-style-type: none"> • Section 1 – Removed phrase in paragraph 5 referencing discontinuation of voluntary third party ISO 14001 registration • Section 1 – Refined EMS scope language in last paragraph to clarify the EMS covers operations and activities at WIPP site and town supporting buildings. • Section 2.2.0, 2.2.1, 2.3.4 – Updated references to website where Environmental Aspects and Impacts Table and the ISMS-EMS Procedural Integration Table can be located • Section 2.2.3 – Added phrase to acknowledge that when WIPP sets objectives/targets that legal and other requirements, technological options and financial, operational and business requirements are taken into account. • Section 2.2.4 – Revised section on Internal Audit to reflect that WIPP QA performs routine audits of the EMS under the QA audit program with audit of full system being performed every third year and surveillance audits being performed in intervening years. • Section 2.5 – Revised management review section to add list of inputs that the management review must include and more clearly describe how the review is accomplished and documented. • Section 3.1, 3.2 – Editorial changes • Section 3.3 – clarification of EMS coordinators role in management review, deleted list of items the EMS Annual Report should consider as the list of inputs for the Management review is now incorporated into Section 2.5. • Section 4.0 – Updated Document numbers for ISMS Description and Records Management Program.
3	02/07/11	<ul style="list-style-type: none"> • Align EMS Elements with ISO 14001:2004(E) element names and descriptors • Clarify Description text throughout document • For each element, added ISO 14001:2004(E) requirements summary and DOE Order 450.1A specific requirements to applicable elements; references to implementing documents; definition ISMS integration related Core Functions and Guiding Principles • Separate the Aspects and Impacts procedure from text imbedded in roles and responsibilities section into a separate section (Section 6) and define ranking criteria. • Correct references

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REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
4	01/30/13	<ul style="list-style-type: none">• Replaced references to DOE Orders 430.2B-1 and 450.1A with DOE Order 436.1 and made minor editorial changes for clarification throughout document.• Definitions; sections 4.2, 4.3, and 4.11 – edited text under subheading “DOE Requirement” to reflect new DOE Order 436.1 requirements.• Section 4.1 – updated figure.• Section 4.2 – removed implementing documents focused on specific environmental legal requirements (verifying documents are referenced appropriately in other EMS elements); updated figure.• Section 4.3 – deleted list of DOE goals (already incorporated in the WIPP Site Sustainability Plan [SSP]), edited WIPP System description to better reflect how the SSP is integrated into the goal-setting process.• Section 4.13 – edited WIPP System language to clarify how corrective/preventive actions are addressed by CBFO and NWP. Added reference to WP 13-QA3004, which may also be used to address corrective and preventive actions for equipment with potential to affect a significant aspect/impact.• Section 5.3 – added Performance Assurance as an organization with the responsibility for the DOE Directive impact assessment process.• References table – updated document titles, numbers, and key steps.• Editorial changes in accordance with MD 1.1.

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5	04/23/14	<ul style="list-style-type: none"> • Based on recommendations from CBFO management assessment, updated/added reference documents in sections 4.2, 4.8, 4.9, and 4.15. • Added DOE Order 430.1b, <i>Real Property Asset Management</i>, to DOE requirements in section 4.2. • Modified definition for Procedure to clarify and distinguish between ISO 14001 definition and Quality Assurance Program Description definition. • Removed <i>WIPP Biennial Environmental Compliance Report</i> from section 4.2 Implementing Documents and <i>WIPP Annual Site Environmental Report</i> from sections 4.6 and 4.11 Implementing Documents. • Corrected references to <i>WIPP Biennial Environmental Compliance Report</i> and <i>WIPP Annual Site Environmental Report</i> in References to reflect current numbering system (issue identified in NWP QA Surveillance). • Replaced references to “Complex Wide Integration Tool” with “project schedules.” • Added responsibility in section 5.1 for employees to know where to find the WIPP Environmental Policy. • Added Science and Development group to list in section 5.3. • Added ISO 14001 requirement statement in Emergency Management entry in section 5.3. • Modified wording throughout section 5.3 for clarity. • Updated figures 1.0-1, 4.1-1, and 4.3-1. • Updated document number for <i>Issues Management Processing of WIPP Forms</i>.

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ACRONYMS AND ABBREVIATIONS

CBFO	Carlsbad Field Office
CFR	Code of Federal Regulations
CTS	Commitment Tracking System
DOE	U.S. Department of Energy
ECAP	Environmental Compliance Walk Around and Assessment Plan
EMS	Environmental Management System
EO	Executive Order
GET	General Employee Training
ISO	International Organization for Standardization
ISMS	Integrated Safety Management System
LANL	Los Alamos National Laboratory
LLC	Limited Liability Company
MOC	Management and Operating Contractor (Nuclear Waste Partnership LLC)
MP	management policy
NEPA	National Environmental Policy Act
NWP	Nuclear Waste Partnership LLC
ODS	ozone depleting substance
P2	pollution prevention
POD	Plan of the Day
POW	Plan of the Week
PPOA	pollution prevention opportunity assessment
Q&MIS	Quality and Manufacturing Integrated System
QA	quality assurance
QAPD	Quality Assurance Program Description
RCRA	Resource Conservation and Recovery Act
RES	Regulatory Environmental Services
RIDS	Records Inventory and Disposition Schedule
SEC	Site Environmental Compliance
SNL	Sandia National Laboratories
SSP	Site Sustainability Plan
TRU	transuranic
WIPP	Waste Isolation Pilot Plant
WP	WIPP document designator

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DEFINITIONS

Unless otherwise noted, definitions are from ISO 14001:2004(E)

Continual Improvement – recurring process of enhancing the environmental management system (EMS) in order to achieve improvements in overall environmental performance in line with the organization's environmental policy.

Corrective Action – action to eliminate the cause of a detected nonconformity.

Environment – surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, and humans, and their interrelation.

Environmental Aspect – element of an organization's activities, products, or services that can interact with the environment.

Environmental Impact – any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's aspects (activities, products, or services).

Environmental Management System (EMS) – part of an organizations management system used to develop and implement its environmental policy and manage its environmental aspects. A management system includes organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources.

Environmental Objective – overall environmental goal, consistent with the environmental policy that an organization sets itself to achieve.

Environmental Performance – measurable results of an organization's management of its environmental aspects. In the context of EMSs results can be measured against environmental policy, environmental objectives and/or targets and other environmental performance requirements.

Environmental Policy – overall intentions and direction of an organization related to its environmental performance as formally expressed by management (the policy provides a framework for action and for setting environmental objectives and targets).

Environmental Target – detailed environmental performance requirement, applicable to the organization or parts thereof, that arises from the environmental objectives and which needs to be set and met to achieve those objectives.

Interested Party – person or group concerned with or affected by the environmental performance of an organization.

Integrated Safety Management System – A U.S. Department of Energy (DOE) safety management system that systematically integrates safety into management and work practices at all levels so that missions are accomplished efficiently while protecting the workers, public, and environment. (Source: DOE Order 450.2, *Integrated Safety Management System*)

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International Standard – ISO 14001:2004(E), *Environmental management systems – Requirements with guidance for use*

Life-Cycle Cost – Sum of present values of capital, installation, operating, maintenance, and disposal costs over the lifetime of the project, product, or measures. (Source: *Instructions for Implementing Executive Order (EO) 13423, Strengthening Federal Environmental, Energy, and Transportation Management*)

Life-Cycle Cost-Effective – Life-cycle costs of a product, project, or measure are estimated to be equal to or less than the base case (i.e., current or standard practice or product). (Source: *Instructions for Implementation of Executive Order 13423*)

Nanomaterials – Matter at dimensions between approximately 1 and 100 nanometers, where unique phenomena enable novel applications. (Based on National Nanotechnology Initiative)

Nonconformity – Non-fulfillment of a requirement.

Preventive Action – Action to eliminate the cause of a potential nonconformity.

Procedure – In the context of the ISO14001 Standard, procedures are the written, unwritten, formal, and/or informal descriptions of how certain activities are conducted. These can include policies, plans, processes, and other types of instructions. Processes described in this document satisfy ISO 14001 requirements to establish EMS-related procedures. This definition differs from that used in both CBFO and MOC Quality Assurance Program Documents. (Source: defined by this EMS_[jm1])

Record – Document stating results achieved or providing evidence of activities performed.

Sustainable Practices/Goals – The practices and resulting goals that are required to be addressed and managed through the EMS by EOs 13423 and 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*. These include energy efficiency, reduction in greenhouse gases, use of renewable energy, reduced water consumption intensity, acquisition of green products and services, pollution prevention (P2) (cost-effective waste prevention, recycling, diversion of solid wastes), sustainable design/high performance buildings, reduction in petroleum consumption, and electronics stewardship. (Based on EOs' content and DOE Order 436.1, *Departmental Sustainability*)

Sustainable Products – Products or services that are energy-efficient, water-efficient, bio-based, environmentally preferable, non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives where products meet agency performance requirements. (Based on EOs' content and DOE Order 436.1)

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Top Management – The Carlsbad Field Office (CBFO) Manager or Deputy Manager and the Management and Operating Contractor (MOC) President & Project Manager or Designee. (Source: defined by this EMS)

WIPP Managers or Management – Both CBFO and MOC functional managers.

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1.0 INTRODUCTION^{1,2,3}

The Waste Isolation Pilot Plant (WIPP) mission is to provide safe, compliant, and efficient characterization, transportation, and disposal of defense transuranic (TRU) waste, as documented in the current *Carlsbad Field Office Strategic Plan*. WIPP is committed to maintaining high standards of environmental quality, and to providing a safe and healthful workplace for its employees, contractors, and the surrounding communities while completing our mission, as noted in the *WIPP Environmental Policy* (DOE/WIPP-04-3310). The DOE CBFO and Nuclear Waste Partnership LLC (NWP) as the MOC have implemented the environmental management system (EMS) to ensure that these commitments and the commitment to strive to continually improve environmental performance are met.

The WIPP EMS is designed to meet the requirements of DOE Order 436.1, *Departmental Sustainability*. The WIPP EMS is integrated into the site's Integrated Safety Management System (ISMS) as "safety" includes the environment as defined in DOE P 450.4A, *Integrated Safety Management Policy*. The ISMS guiding principles and core functions are applicable to protection of the environment and employee and public health.

The EMS also conforms to the International Organization for Standardization (ISO) 14001:2004, *Environmental Management Systems – Requirements with Guidance for Use* (international standard). The CBFO and MOC have chosen to maintain certification to this standard via an independent third-party certification body.

The EMS is based on the Continuous Improvement cycle of Plan – Do – Check – Act (analogous to ISMS core functions). Within each of these phases of the cycle, there are actions that the CBFO and MOC perform to ensure operations are conducted in accordance with the WIPP Environmental Policy. For the EMS, the actions are grouped by the "elements" defined in the international standard. This cycle, the elements and their corresponding sections (i.e., sections 4.2, 4.3) in this document are illustrated in figure 1.0-1.

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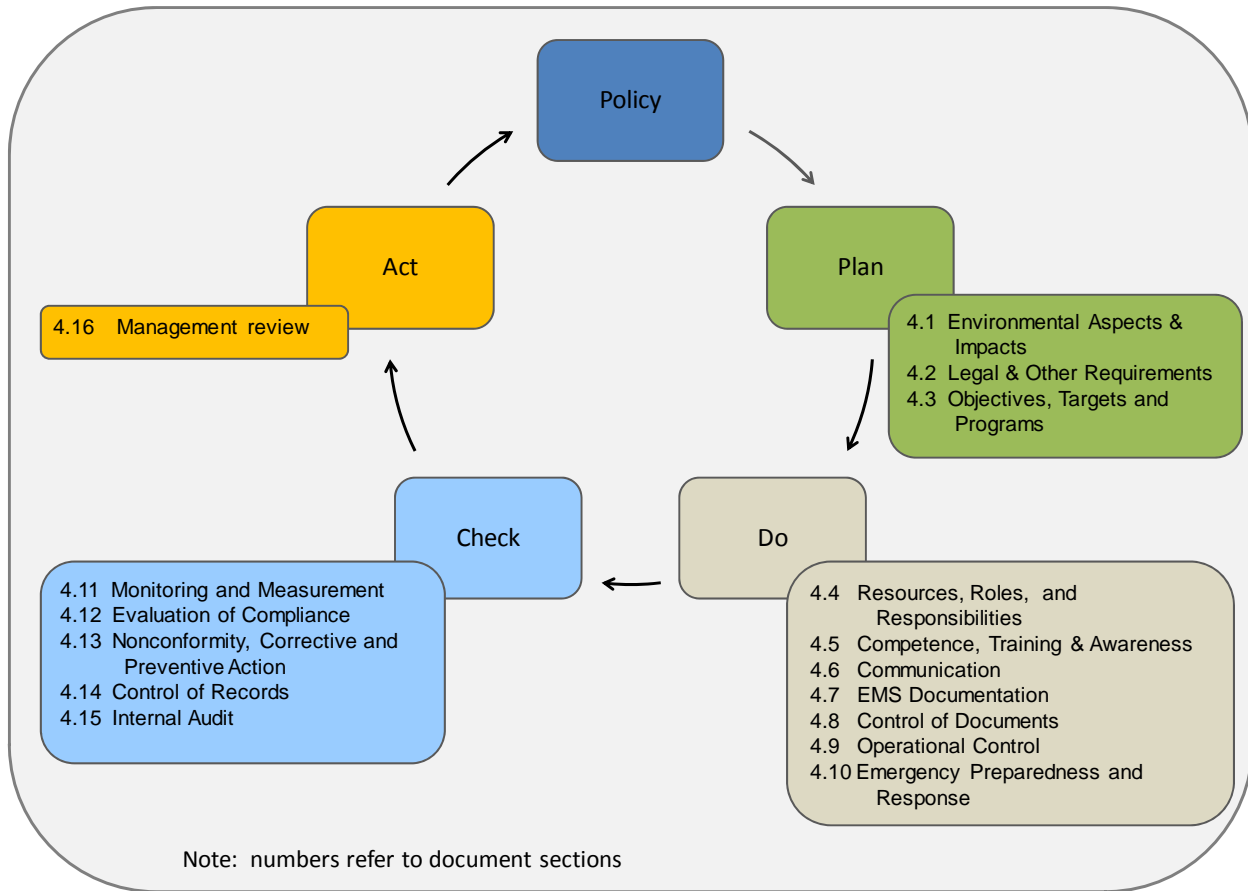


Figure 1.0-1, EMS Continuous Improvement Cycle with Supporting Elements

The remainder of this document describes the WIPP EMS. Specifically, each element of the system contains the following subsections and contents:

- **ISO 14001 Requirement(s)** – summary of the international standard's requirements. These are highlighted by the use of italics.
- **DOE Requirement(s)** – summary of additional requirements relative to each element if specified in DOE Order 436.1; also highlighted by the use of italics.
- **WIPP System** – brief description of how the element is implemented.
- **Implementing Documents** – list of implementing documents. These may include CBFO and/or MOC policies, programs, plans or procedures. In general, the highest level documents (policies, program documents) are listed in this section with sub-tier supporting documents (procedures) not being listed. In some cases, the system is fully contained in this EMS description, and thus there may be no further documents referenced in this subsection.
- **ISMS Integration** – related ISMS Core Function(s) and Guiding Principle(s) (inclusive of ISMS culture descriptors).

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2.0 EMS SCOPE

This EMS applies to the environmental aspects of WIPP operations and activities at the WIPP site and the Carlsbad, New Mexico, support buildings conducted by the CBFO and MOC and their subcontractors within these locations.

Sandia National Laboratories (SNL) and Los Alamos National Laboratory (LANL) are not within the scope of this EMS as they are required by the DOE to have their own EMS. When performing work for WIPP, SNL and LANL are expected to conduct their activities under their own EMS, consistent with the DOE Order 436.1 requirements.

3.0 ENVIRONMENTAL POLICY

ISO 14001 Requirements

Top management shall define the organization's environmental policy and ensure that, within the defined scope of its environmental management system, it (a) is appropriate to the nature, scale and environmental impacts of its activities, products and services; (b) includes a commitment to continual improvement and pollution prevention; (c) includes a commitment to comply with applicable legal requirements, and with other requirements to which the organization subscribes which relate to its environmental aspects; (d) provides the framework for setting and reviewing environmental objectives and targets; (e) is documented, implemented, and maintained; (f) is communicated to all persons working for or on behalf of the organization; and (g) is available to the public.

WIPP System

The WIPP Environmental Policy is jointly issued by CBFO and MOC top managers. This policy is the foundation of the WIPP EMS and communicates management's commitment to maintain the highest standard of environmental performance. It references the EMS as the mechanism for achieving policy and contains commitments to comply with applicable environmental requirements; implement pollution prevention through safe, responsible, cost-effective methods; and to continuously improve WIPP environmental and safety performance. The policy provides the framework for setting and reviewing WIPP's annual environmental objectives and targets.

The policy is maintained in the WIPP document control system and is updated when deemed appropriate through management review or other means. The policy is communicated to WIPP employees through initial and annual refresher General Employee Training (GET). The policy is communicated to vendors through the Vendor Safety Briefing. In addition, CBFO and MOC may choose to use other mechanisms to communicate policy including posters, badge cards, or internal communications.

The WIPP Environmental Policy Statement is available to the public by calling the WIPP Information Center at 1-800-336-9477, or from the "Documents" menu at the top of the WIPP Internet Homepage at www.wipp.energy.gov.

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Implementing Documents

DOE/WIPP-04-3310	<i>WIPP Environmental Policy</i>
NWP MP 1.28	<i>Integrated Safety Management</i>

ISMS Integration

Core Function(s)	Define Scope of Work
Guiding Principle(s)	Line Management Responsibility for Safety

4.0 EMS ELEMENTS

4.1 Environmental Aspects and Impacts

ISO Requirements

The organization shall establish, implement and maintain a procedure(s) to (a) identify the environmental aspects of its activities, products, and services within the defined scope of the environmental management system that it can control and that it can influence taking into account planned or new developments, or new or modified activities, products and services, and (b) determine those aspects that have or can have significant impact(s) on the environment (i.e., significant environmental aspects). The organization shall document this information and keep it up to date. The organization shall ensure that the significant environmental aspects are taken into account in establishing, implementing and maintaining its environmental management system.

WIPP System

The CBFO and MOC procedure for identifying environmental aspects and determining their significance is outlined in figure 4.1-1. This process is facilitated by the MOC EMS Coordinator.

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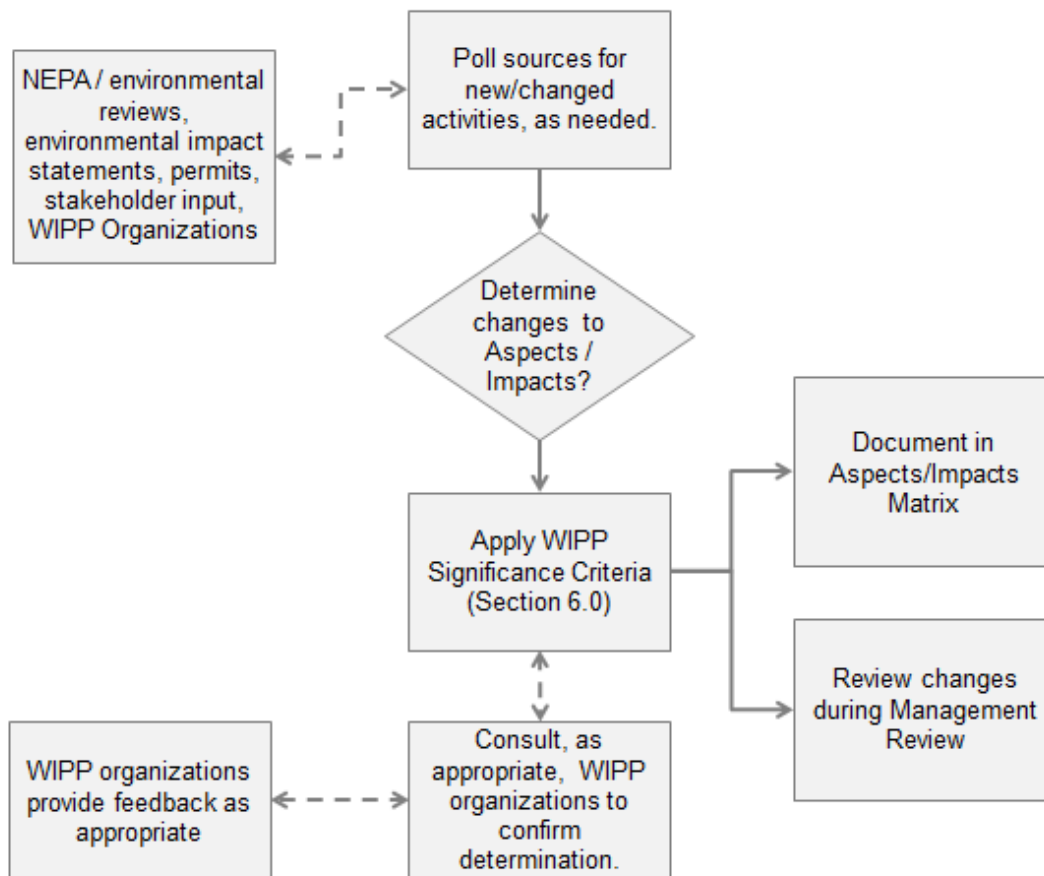


Figure 4.1-1, Procedure for Determining Significant Aspects and Impacts

The CBFO and MOC apply the criteria outlined in Section 6.0 to determine significance. Aspects and Impacts are documented and maintained in the Environmental Aspects and Impacts Matrix. A working copy of the matrix is posted on the internal EMS website.

The CBFO and MOC ensure that environmental aspects are taken into account in implementing and maintaining the EMS through implementation of the remaining EMS elements (e.g., objectives, targets and programs, operational controls, competence, awareness and training; resources, roles, and responsibilities).

Implementing Documents

DOE/WIPP-05-3318	<i>EMS Description, sections 4.1, 5.0, 6.0</i>
CBFO MP 4.12	<i>NEPA Compliance</i>
WP 02-EC.08	<i>NEPA Compliance Plan</i>
WP 02-EC3801	<i>Environmental Compliance Review and NEPA Screening</i>
N/A	<i>WIPP Aspects and Impacts Matrix</i>

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ISMS Integration

Core Function(s): Analyze Hazards
Guiding Principle(s): Identification of Safety Standards and Requirements

4.2 Legal and Other Requirements

ISO Requirements

The organization shall establish, implement, and maintain a procedure(s) (a) to identify and have access to the applicable legal requirements and other requirements to which the organization subscribes related to its environmental aspects, and (b) to determine how these requirements apply to its environmental aspects. The organization shall ensure that these applicable requirements are taken into account in establishing, implementing and maintaining its environmental management system.

DOE Requirements

DOE sites must comply with the sustainability requirements contained in the following documents through implementation of a Site Sustainability Plan (SSP):

- DOE Order 436.1, *Departmental Sustainability*
- EO 13423, *Strengthening Federal Environmental, Energy, and Economic Performance*
- EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*
- *National Energy Conservation Policy Act*
- *Energy Policy Acts of 1992 and 2005*
- *Energy Independence and Security Act of 2007*
- *Inventory and reporting requirements of section 301 through 313 of the Emergency Planning and Community Right to Know Act*
- *Pollution Prevention Act of 1990*

In addition, the WIPP project must comply with DOE Order 430.1B, *Real Property Asset Management* (requires land use planning and stewardship responsibilities be implemented consistent with the principles of ecosystem management and sustainable development)

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WIPP System

Access to legal requirements is provided through CyberRegs® and intranet access to state and federal websites containing regulations and other requirements documents (e.g., DOE Directives).

The WIPP utilizes three procedures for identifying legal and other requirements related to environmental aspects and determining their impact. The first procedure is that Regulatory Environmental Services (RES) staff performs regular reviews of the *Federal Register* and other publications to identify and evaluate changes in regulations, DOE Directives, or changes in "other" requirements. The second procedure is used by the WIPP environmental staff to identify and determine the impact of new or revised requirements from DOE Directives and is facilitated by the MOC Performance Assurance staff. In both procedures, requirements that may impact the WIPP are routed, as appropriate, to subject matter experts for analysis and impact determinations. Subsequently, applicable requirements are incorporated into policies, plans, procedures, targets, etc., as determined to be necessary for implementation. The third procedure is that CBFO uses its Directives Compliance Program procedure and process to determine applicability of new or revised DOE Directives, such as orders, notices, policies, guides, and technical standards, and to initiate implementation and proper flow-down of directives into support contracts as appropriate.

The CBFO and MOC voluntarily subscribe to two sets of "other" requirements, the international standard and the New Mexico Environment Department's Green Zia Environmental Leadership Program, a statewide program for New Mexico organizations that demonstrate a commitment to environmental stewardship to report environmental results and set environmental goals.

Legal requirements and compliance status are reported in the *WIPP Biennial Environmental Compliance Report*.

Implementing Documents

<i>CBFO MP 5.4</i>	<i>Directives Compliance Program</i>
<i>NWP MP 1.45</i>	<i>Regulatory Requirements Impact Assessments</i>
<i>WP 15-PA1000</i>	<i>Regulatory Requirements Impact Assessment Process</i>
<i>WP 15-PA1002</i>	<i>Directives Management</i>

ISMS Integration

Core Function(s):	Analyze Hazards
Guiding Principles:	Identification of Safety Standards and Requirements
	Hazard Controls Tailored to Work Being Performed

4.3 Objectives, Targets, and Programs

ISO Requirements

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The organization shall establish, implement and maintain documented environmental objectives and targets, at relevant functions and levels within the organization. The objectives and targets shall be measurable, where practicable, and consistent with the environmental policy, including the commitments to prevention of pollution, to compliance with applicable legal and "other" requirements and to continual improvement. When establishing and reviewing its objectives and targets, an organization shall take into account legal and "other" requirements, and its significant environmental aspects. It shall also consider its technological options, its financial, operational, and business requirements, and the views of interested parties. The organization shall establish, implement and maintain a program(s) for achieving its objectives and targets. Program(s) shall include (a) designation of responsibility for achieving objectives and targets at relevant functions and levels of the organization, and (b) the means and time-frame by which they are to be achieved.

DOE Requirements

Each DOE site must develop and implement an annual SSP that identifies its respective contribution toward meeting the DOE's sustainability goals. The SSP must also commit appropriate resources and an appropriate financing plan, and establish a timeline for execution coupled with specific performance measures and deliverables. Objectives and measurable targets that contribute to the DOE meeting its sustainability goals must be implemented through the EMS.

WIPP System

WIPP's environmental objectives and targets are not typically related to maintaining compliance as compliance is the baseline expectation for environmental performance. Managers ensure compliance with legal and other requirements is planned for when preparing long and short term (annual) budgets. Compliance programs are implemented via formal project schedules, other work schedules or programmatic actions as appropriate to the complexity of the compliance requirement.

Environmental objectives and targets may be focused on improvements in one or more of the following:

- Management of significant aspects and impacts.
- Methods used to maintain compliance.
- Sustainability, inclusive of the traditional pollution prevention arena.

Development of potential environmental objectives and targets is facilitated by the EMS Coordinators based on interaction with relevant departments, consideration of opportunities for improvements in management of significant aspects and the WIPP Site Sustainability Plan. Technological options and financial, operational, and business requirements are factored into the determination and/or implementation of the objectives and targets.

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Proposed targets are reviewed, adjusted when desired, and approved by the WIPP Project's Top Management during management review(s). Once approved, the targets are published to the entire organization and the specific departments and individuals responsible for the target are notified that the appropriate level of budget and program plan must be in place and followed to ensure implementation of the target.

Targets may be tracked through formal or informal project schedules, Plan of the Week/Day (POW/POD) schedules, Commitment Tracking System (CTS) actions, or via status reports. Figure 4.3-1 illustrates the development of objectives, targets, and associated program planning.

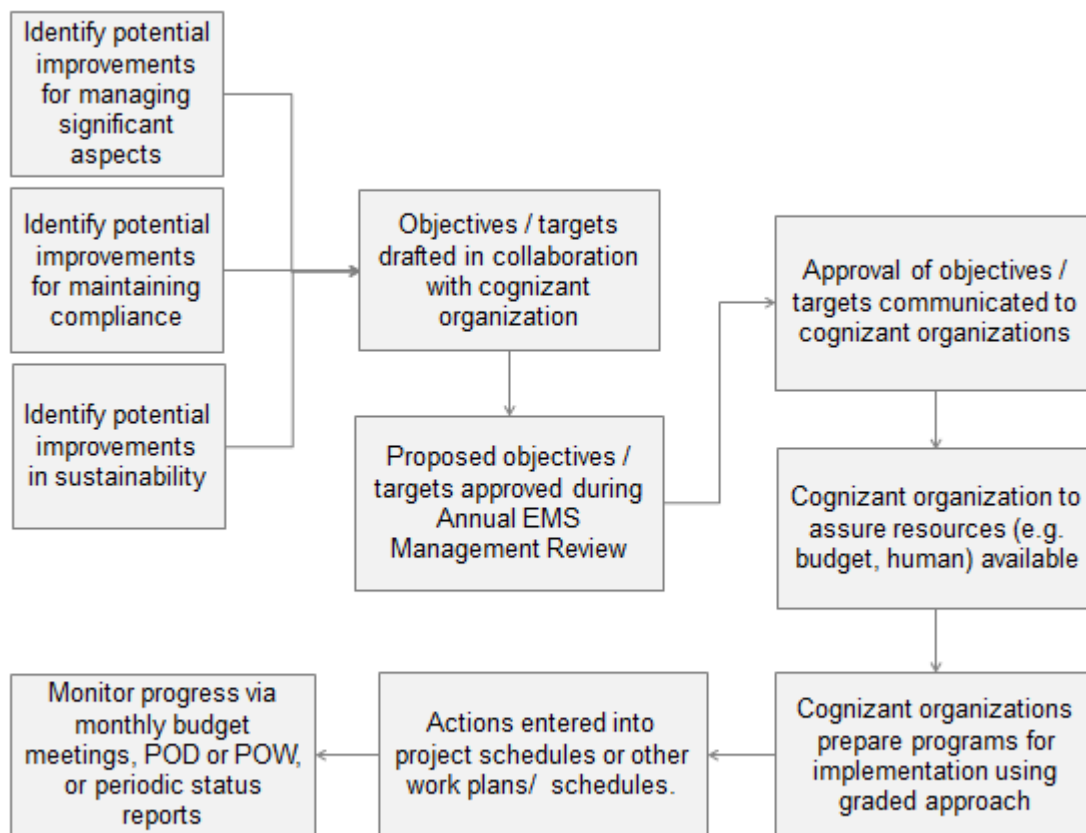


Figure 4.3-1, Objectives, Targets, Planning Process

Implementing Documents

N/A	WIPP Site Sustainability Plan
DOE/WIPP-04-3300	WIPP Project Control System Description
NWP MP 1.29	Mission, Goals, and Responsibilities
WP 15-2	NWP Management Control System Description
WIPP Environmental Targets	Current year list accessible from internal EMS website

ISMS Integration

Core Function(s): Analyze Hazards, Develop and Implement Hazard Controls

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Guiding Principle(s)	Balanced Priorities, Identification of Safety Standards and Requirements
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4.4 Resources, Roles, and Responsibilities

ISO Requirements

Management shall ensure the availability of resources essential to establish, implement, maintain and improve the environmental management system. Resources include human resources and specialized skills, organizational infrastructure, technology and financial resources. Roles, responsibilities and authorities shall be defined, documented and communicated in order to facilitate effective environmental management.

The organization's top management shall appoint a specific management representative(s) who, irrespective of other responsibilities, shall have defined roles, responsibilities and authority for (a) ensuring that an environmental management system is established, implemented and maintained in accordance with the requirements of this International Standard, (b) reporting to top management on the performance of the environmental management system for review, including recommendations for improvement.

WIPP System

WIPP Management ensures the resources are available for implementing and improving the EMS through the annual and long-term (out-year) budget setting processes as described in section 4.3 and the implementing documents for this element.

Roles and responsibilities for the EMS are defined and documented in section 5.0. The general roles and responsibilities of each employee are communicated to WIPP personnel through GET. They may also be communicated through other appropriate venues such as articles in WIPP internal newsletters, the EMS website, or special awareness training. Responsibilities related to specific programs or procedures are established within implementing document(s).

CBFO and MOC EMS coordinators have been appointed with the responsibility and authority for ensuring that the EMS requirements are established, implemented, and maintained. These individuals also report on the performance of the EMS and facilitate top management review of the EMS.

Implementing Documents

DOE/WIPP-09-3441	<i>Functions, Responsibilities and Authorities Manual</i>
NWP MP 1.21	<i>Management Responsibility and Accountability</i>
NWP MP 1.29	<i>Mission, Goals, and Responsibilities</i>

ISMS Integration

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Core Functions:	Develop and Implement Hazard Controls
Guiding Principles:	Clear Roles and Responsibilities, Individual Attitude and Responsibility for Safety

4.5 Competence, Training, and Awareness

ISO Requirements

The organization shall ensure that any person(s) performing tasks for it or on its behalf that have the potential to cause a significant environmental impact(s) identified by the organization is(are) competent on the basis of appropriate education, training or experience, and shall retain associated records. The organization shall identify training needs associated with its environmental aspects and its environmental management system. It shall provide training or take other action to meet these needs, and shall retain associated records.

The organization shall establish, implement and maintain a procedure(s) to make persons working for it or on its behalf aware of a) the importance of conformity with the environmental policy and procedures and with the requirements of the environmental management system, b) the significant environmental aspects and related actual or potential impacts associated with their work, and the environmental benefits of improved personal performance, c) their roles and responsibilities in achieving conformity with the requirements of the environmental management system, and d) the potential consequences of departure from specified procedures.

WIPP System

Competence of employees performing work that could cause a significant environmental impact is ensured through satisfactory completion of specific training requirements and/or qualification standards. This is accomplished through the WIPP comprehensive training program, administered by the Technical Training Department. The training program uses a DOE-approved methodology of Tabletop Job and Needs Analysis, and Tabletop Training Program Design to determine training content based on defined job requirements. Workers who will perform waste handling, TRU and hazardous waste management, mining, maintenance, and other waste management and compliance tasks must successfully complete the required training and, in many cases, the necessary qualifications, before they may begin unsupervised work in those areas.

Employees are made aware of requirements and expectations related to the EMS as follows:

- GET (EMS and Conduct of Operations sections)
- EMS content in Hazardous Waste Worker, Hazardous Waste Supervisor, Hazardous Waste Responder, and Radiation Worker training modules
- Other EMS Awareness Training is provided on as "as-needed" basis

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- Internal communications (e.g., TRU TeamWorks, 2150)
- Employee Handbook (Rules of Conduct and Progressive Discipline section)

Other personnel working for or on the behalf of the WIPP are made aware of EMS requirements through contractual terms, completion of GET, and/or by viewing the WIPP visitor/vendor orientation video.

Implementing Documents

DOE/CBFO-02-3219	<i>Technical Qualification Program Plan</i>
GET 210	<i>General Employee Training, initial and refresher</i>
WP 14-TR.01	<i>WIPP Training Program</i>
N/A	<i>NWP Employee Handbook</i>

ISMS Integration

Core Function(s):	Develop & Implement Hazard Controls
Guiding Principles(s):	Competence Commensurate with Responsibilities,

4.6 Communication

ISO Requirements

With regard to its environmental aspects and environmental management system, the organization shall establish, implement and maintain a procedure(s) for a) internal communication among the various levels and functions of the organization, b) receiving, documenting and responding to relevant communication from interested parties.

The organization shall decide whether to communicate externally about its significant environmental aspects, and shall document its decision. If the decision is to communicate, the organization shall establish and implement a method(s) for this external communication.

WIPP System

Internal communications regarding the WIPP environmental aspects and EMS are integrated with overall internal communications mechanisms. The mechanisms include, but are not limited, to:

- GET.
- Documented policies, programs, plans, and procedures that address activities that could have significant environmental aspects and their impacts.
- Meetings (e.g., POD, POW, weekly integration, staff, and all hands).
- WIPP internal EMS website.

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- Electronic and paper communications (e.g., *TRU TeamWorks*, 2150, sustainability/pollution prevention newsletters).
- Suggestion and conflict resolution systems, as well as mechanisms for addressing employee issues and concerns (e.g., employee concerns and issues management programs).

Relevant communications from interested parties, for purposes of this EMS element, are concerns communicated to the CBFO and/or MOC in writing, excluding those expressed via a defined regulatory process (e.g., permitting or compliance recertification), which are related to environmentally safe disposal of TRU waste, environmental justice, current or long term environmental impact of WIPP operations or the EMS.

The WIPP procedure for receiving and response to these communications is to provide either a verbal or written response as determined to be appropriate by cognizant WIPP personnel. Cognizant individuals responding to relevant communications notify CBFO and/or MOC EMS Coordinator(s) for documentation of the communication and response.

The CBFO and MOC have chosen to communicate externally about significant environmental aspects and impacts using the following mechanisms:

- The NEPA process - ensures public involvement should new activities be undertaken by the WIPP that may have significant environmental impacts as defined in the NEPA regulations.
- Annual Site Environmental Reports - communicates environmental performance. The reports are available via the WIPP public website.
- Comprehensive public involvement efforts, which may include meetings with stakeholders, permit hearings, press releases to the news media, the WIPP information repository and a toll-free information line at 1-800-336-WIPP (extension 9477).

Implementing Documents

DOE/WIPP 02-3197	<i>Employee Concerns Program</i>
NWP MP 1.4	<i>Release of Information to the Public</i>
NWP MP 1.41	<i>Issues Management WIPP Form</i>
NWP MP 4.2	<i>Employee Concerns</i>
NWP MP 4.3	<i>Employee Communications</i>
WP 02-EC.08	<i>NEPA Compliance Plan</i>
WP 02-RC3111	<i>Information Repository</i>

ISMS Integration

Core Function(s): Develop & Implement Hazard Controls

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Guiding Principle(s): Hazard Controls Tailored to Work Being Performed,
Operational Excellence

4.7 EMS Documentation

ISO Requirements

The environmental management system documentation shall include (a) the environmental policy, objectives and targets, (b) description of the scope of the EMS, (c) description of the main elements of the EMS and their interaction, and reference to related documents, (d) documents, including records, required by this International Standard, and (e) documents, including records, determined by the organization to be necessary to ensure the effective planning, operation and control of processes that relate to its significant environmental aspects.

WIPP System

The environmental policy is maintained in the WIPP electronic document management system (Q&MIS).

Objectives and targets are documented in the record of the EMS annual management review and are accessible from the internal WIPP EMS website (WIPPNet.)

This EMS description document describes the scope of the EMS (section 2.0), the main elements and references to related documents (sections 3.0 and 4.0).

Documents governing the operation and control of processes that relate to significant environmental aspects are plans and procedures. Records generated from these processes are designated in relevant procedures.

The integration of ISMS and the EMS is described in this document as well as in the CBFO and MOC ISMS Descriptions. The ISMS Description may also describe interrelated environmental documents when they perform core functions of the ISMS.

Implementing Documents

DOE/WIPP 04-3310	<i>WIPP Environmental Policy</i>
DOE/WIPP 05-3318	<i>WIPP Environmental Management System Description</i>
DOE/CBFO 09-3442	<i>CBFO Integrated Safety Management System Description</i>
WP 15-GM.03	<i>Integrated Safety Management System Description</i>

ISMS Integration

Core Function(s):	Develop & Implement Hazard Controls
Guiding Principle(s):	Hazard Controls Tailored to Work Being Performed

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4.8 Control of Documents

ISO Requirements

Documents required by the EMS and by this International Standard shall be controlled. Records are a special type of document and shall be controlled in accordance with the requirements given in Control of Records element (Section 4.14). The organization shall establish, implement and maintain a procedure(s) to a) approve documents for adequacy prior to issue, b) review and update as necessary and re-approve documents, c) ensure that changes and the current revision status of documents are identified, d) ensure that relevant versions of applicable documents are available at points of use, e) ensure that documents remain legible and readily identifiable, f) ensure that documents of external origin determined by the organization to be necessary for the planning and operation of the EMS are identified and their distribution controlled, and g) prevent the unintended use of obsolete documents and apply suitable identification to them if they are retained for any purpose.

WIPP System

Policies, procedures, and other programmatic documents are developed, revised, maintained, and their distribution controlled with copies made available at points of use in accordance with CBFO and MOC Quality Assurance (QA) and document control programs and procedures.

Implementing Documents

DOE/CBFO-94-1012	<i>Quality Assurance Program Document</i>
CBFO MP 4.1	<i>Preparation and Maintenance of CBFO Procedures</i>
CBFO MP 4.2	<i>Document Review</i>
CBFO MP 4.4	<i>Document Control and Preparation</i>
WP 13-1	<i>NWP LLC Quality Assurance Program Description</i>
WP 15-PS.2	<i>Procedure Writers Guide</i>
WP 15-PS3002	<i>Controlled Document Processing</i>
WP 15-PS3103	<i>Document Distribution</i>

ISMS Integration

Core Function(s):	Develop & Implement Hazard Controls
Guiding Principle(s):	Hazard Controls Tailored to Work Being Performed, Operational Excellence

4.9 Operational Control

ISO Requirements

The organization shall identify and plan those operations that are associated with the identified significant environmental aspects consistent with its environmental policy, objectives and targets, in order to ensure that they are carried out under specified conditions, by (a) establishing, implementing and maintaining a documented

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procedure(s) to control situations where their absence could lead to deviation from the environmental policy and targets, and (b) stipulating the operating criteria in the procedure(s), and (c) establishing, implementing, and maintaining procedures related to the identified significant environmental aspects of goods and services used by the organization and communicating applicable procedures and requirements to suppliers, including contractors.

WIPP System

Organizations responsible for implementing controls relative to significant aspects and impacts are listed in the WIPP EMS Aspects and Impacts Matrix. Controls are in various forms including, but not limited to, engineered controls, programs, procedures, work instructions, preventive maintenance orders, scheduling, etc. Controls are established in accordance with WIPP conduct of operations programs. These programs are integral to implementation of this EMS and the WIPP ISMS and ensure that operations are consistent with environmental policy, objectives and targets.

The conduct of operations programs ensure WIPP operations are planned and executed in a formal, disciplined manner that protects people and the environment. They are implemented through controlled project design and documentation, development and implementation of thorough and clear procedures, clear definition of roles and responsibilities, assurance of competence, qualification of personnel and ensuring that mechanical systems remain functional and perform as required. Procedures are implemented and establish operating criteria, where appropriate, so there is no deviation from environmental policy and targets.

QA programs (CBFO and MOC) also provide an integral function supporting operational control, including control related to environmental aspects. A comprehensive QA program has been implemented to ensure that all work is performed in a manner such that required quality is attained or exceeded. This program is tailored for activities associated with the receipt of TRU waste, including operational safety, environmental compliance, and performance assessment.

WIPP's mechanisms for communicating applicable procedures/requirements related to significant environmental aspects of goods and services to suppliers, including contractors, are multi-faceted. Mechanisms are:

- | | |
|-------------|---|
| Contractual | <ul style="list-style-type: none"> • Specific Statements of Work and Contracts when appropriate. • MOC General Terms and Provisions for subcontracts for commercial items, firm fixed price construction, firm fixed price orders and cost reimbursement. |
| Orientation | <ul style="list-style-type: none"> • Viewing the site visitor/vendor orientation video is required prior to coming onsite. |
| Training | <ul style="list-style-type: none"> • Completion of GET prior to working onsite. |
| Oversight | <ul style="list-style-type: none"> • Subcontract Technical Representative oversight of contractors/services provided to WIPP. |

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Implementing Documents

CBFO MP 4.12	<i>NEPA Compliance</i>
DOE/CBFO-04-3299	<i>CBFO Contractor Oversight Plan</i>
DOE/CBFO-94-1012	<i>Quality Assurance Program Document</i>
DOE/WIPP-00-3121	<i>Implementation Plan for 40 CFR 191, Subpart A</i>
DOE/WIPP-06-3339	<i>WIPP Groundwater Protection Program Plan</i>
DOE/WIPP-93-004	<i>WIPP Land Management Plan</i>
WP MP 1.34	<i>NWP Contracts and Procurement Program</i>
WP MP 1.54	<i>Conduct of Operations Policy</i>
WP 02-EC.08	<i>NEPA Compliance Plan</i>
WP 02-EC.11	<i>WIPP Pollution Prevention Program Plan</i>
WP 02-EC3801	<i>Environmental Compliance Review and NEPA Screening</i>
WP 02-PC.02	<i>Delaware Basin Drilling Surveillance Plan</i>
WP 04-CO.01	<i>Conduct of Operations</i>
WP 04-CO.01-x	<i>Conduct of Operations Series (x = series number)</i>
WP 09	<i>Conduct of Engineering</i>
WP 13-1	<i>Nuclear Waste Partnership LLC Quality Assurance Program Description</i>
WP 15-2	<i>NWP Management Control System Description</i>
GET 210	<i>General Employee Training</i>
N/A	<i>WIPP Site Sustainability Plan</i>

ISMS Integration

Core Function(s):	Develop and Implement Hazard Controls, Perform Work within Controls
Guiding Principle(s):	Hazard Controls Tailored to Work Being Performed, Operational Excellence

4.10 Emergency Preparedness and Response

ISO Requirements

The organization shall (1) establish, implement and maintain a procedure(s) to identify potential emergency situations and potential accidents that can have an impact(s) on the environment and how it will respond to them, (2) respond to actual emergency situations and accidents and prevent or mitigate associated adverse environmental impacts, (3) periodically review and, where necessary, revise its emergency preparedness and response procedures, in particular, after the occurrence of accidents or emergency situations, (4) periodically test such procedures where practicable.

WIPP System

The CBFO and MOC have a comprehensive emergency management program for properly identifying and addressing emergency events including radiological, nonradiological accident, and environmental events. Environmental incidents are managed in accordance with the WIPP emergency management program. The Emergency Management Program includes formal exercises to validate program

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elements. Program elements are validated by initiating a response to simulated, realistic emergency events or conditions in a manner that, as nearly possible, replicates an integrated emergency response. Some smaller response elements may be validated in larger scope drills or exercises as practicable. Corrective actions identified from events, drills or exercises are documented and processed in accordance with the WIPP Issues Management Program (including, but not limited to, appropriate updates to program and procedure documents).

Implementing Documents

DOE/CBFO-09-3437	<i>CBFO Emergency Management Plan</i>
DOE/WIPP-08-3378	<i>WIPP Emergency Planning Hazards Assessment</i>
WP 12-9	<i>WIPP Emergency Management Program</i>
WP 12-11	<i>Development and Maintenance of an Emergency Planning Hazards Survey</i>
WP 12-12	<i>Development and Maintenance of an Emergency Planning Hazards Assessment</i>
WP 12-13	<i>Development and Maintenance of Emergency Action Levels</i>
WP 12-RP.01	<i>U.S. DOE WIPP Emergency Planning Hazards Survey Report</i>

ISMS Integration

Core Function(s):	Develop and Implement Hazard Controls, Perform Work within Controls
Guiding Principles(s):	Hazard Controls Tailored to Work Being Performed, Operational Excellence, Organizational Learning for Performance Improvement

4.11 Monitoring and Measurement

ISO Requirements

The organization shall establish, implement and maintain a procedure(s) to monitor and measure, on a regular basis, the key characteristics of its operations that can have a significant environmental impact. The procedure(s) shall include the documenting of information to monitor performance, applicable operational controls and conformity with the organizations environmental objectives and targets. The organization shall ensure that calibrated or verified monitoring and measurement equipment is used and maintained and shall retain associated records.

WIPP System

The WIPP comprehensive environmental monitoring program established baseline environmental conditions and continues to monitor key characteristics of operations (e.g., disposal of TRU waste, mining salt) that can have significant environmental impacts. The program includes environmental monitoring and surveillance activities and related QA/quality control activities. Supporting programs and procedures monitor

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for environmental impact to groundwater, soil/sediment, air quality, flora, fauna, and humans on and around the WIPP site.

Results of the environmental monitoring program are reported in Annual Site Environmental Reports.

Progress toward targets that support DOE sustainability goals is monitored and reported in the status report posted on the WIPP internal EMS website, in the annual update to the WIPP SSP, and in the annual management review.

Measuring and monitoring equipment is calibrated or verified through implementation of the WIPP procedure for calibration and control of monitoring and data collection equipment or as specified in procedures for monitoring of specific media.

Implementing Documents

DOE/WIPP-99-2194	<i>WIPP Environmental Monitoring Program</i>
WP 02-1	<i>Groundwater Monitoring Program Plan</i>
WP 02-2	<i>WIPP Discharge Permit 831 Monitoring Plan</i>
WP 10-AD3029	<i>Calibration and Control of Monitoring and Data Collection Equipment</i>
WP 12-VC.01	<i>Confirmatory Volatile Organic Compound Monitoring Plan</i>
WP 12-VC.03	<i>Hydrogen and Methane Monitoring Plan</i>

ISMS Integration

Core Function(s):	Provide Feedback and Continuous Improvement
Guiding Principle(s):	Line Management Responsibility for Safety, Organizational Learning for Performance Improvement

4.12 Evaluation of Compliance

ISO Requirements

Consistent with its commitment to compliance, the organization shall establish, implement and maintain a procedure(s) for periodically evaluating compliance with applicable legal requirements and for evaluation of compliance with "other" requirements. The organization shall keep records of the results of the periodic evaluations.

WIPP System

Compliance with legal requirements is evaluated through maintenance and implementation of the CBFO contractor oversight process and assessments performed under the MOC programs for QA independent assessments, performance assurance, and environmental compliance walkaround and assessment.

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Implementing Documents

DOE/CBFO-04-3299	<i>CBFO Contractor Oversight Plan</i>
CBFO MP 10.3	<i>Audits</i>
CBFO MP 10.2	<i>Surveillances</i>
WP 02-EC.13	<i>Environmental Compliance Walk Around and Assessment Plan</i>
WP 13-QA.03	<i>QA Independent Assessment Program</i>
WP 15-PA3000	<i>Standards/Requirements Identification Document</i>

ISMS Integration

Core Function(s):	Provide Feedback and Continuous Improvement
Guiding Principle(s):	Balanced Priorities, Oversight for Performance Assurance, Organizational Learning for Performance Improvement

4.13 Nonconformity Corrective and Preventive Action

ISO Requirements

The organization shall establish, implement, and maintain a procedure(s) for dealing with actual and potential nonconformity(ies) and for taking corrective action and preventive action. The procedure(s) shall define requirements for (a) identifying and correcting nonconformity(ies) and taking action(s) to mitigate their environmental impacts; (b) investigating nonconformity(ies), determining their cause(s) and taking actions in order to avoid their recurrence; (c) evaluating the need for action(s) to prevent nonconformity(ies) and implementing appropriate actions designed to avoid their occurrence; (d) recording the results of corrective action(s) and preventive action(s) taken; and (e) reviewing the effectiveness of corrective action(s) and preventive action(s) taken. Actions taken shall be appropriate to the magnitude of the problems and the environmental impacts encountered. The organization shall ensure that any necessary changes are made to EMS documentation.

WIPP System

WIPP has implemented several programs with procedures that address the requirements related to nonconformities (non-fulfillment of a requirement). These programs are summarized in the following paragraphs.

The CBFO corrective action procedure establishes responsibilities and defines the method for initiating and processing corrective action reports (CARs) issued by the CBFO. The MOC external oversight activities procedure assures that nonconformities identified by the CBFO or other external entities (e.g., regulator, DOE Headquarters) are addressed. Implementation of actions to address CARs is tracked via the MOC external oversight activities program and CTS. In addition, the program provides for review of the effectiveness of corrective action, usually through a follow-up audit or surveillance.

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The WIPP Issues Management Program is the MOC's formal process to capture, evaluate, and track the resolution of issues, deficiencies, and associated actions. Issues may include those identified by any employee in any organization, issues identified in assessments (audits/surveillances) and self identified issues. Implementation of actions is tracked through the Issues Management Processing System (IMPS) or the work control process. Determination of effectiveness of these actions is accomplished through review by the issues management committee. In addition, the next regularly scheduled audit by the MOC QA department that covers the area where the corrective actions were implemented includes a review of the corrective actions, and the MOC QA department may conduct an unscheduled follow-up assessment or audit to verify effectiveness of the actions.

WIPP has a specific nonconformance procedure for items and materials that are determined to have an unacceptable characteristic or record that renders them unable to perform their intended function. These items or materials are recorded on nonconformance reports and their corrective action(s) tracked via the CTS. Corrective actions for programmatic issues related to nonconformances, including multiple occurrences of similar nonconforming conditions, are also addressed through the WIPP Issues Management Program.

Each of these programs and procedures use a graded approach (appropriate to the magnitude and impacts) to determine root and contributing causes and to determine corrective or preventive actions. These systems are also used as the basis for providing status of actions to senior management.

Implementing Documents

CBFO MP 3.1	<i>Corrective Action Reports</i>
NWP MP 1.24	<i>Commitment Tracking System</i>
NWP MP 1.41	<i>Issues Management – WIPP Forms</i>
WP 04-CO.01-6	<i>Conduct of Operations Program – Investigation of Abnormal Events</i>
WP 13-QA3004	<i>Nonconformance Report</i>
WP 13-QA3007	<i>External Oversight Activities</i>
WP 15-GM1001	<i>Root Cause Analysis</i>
WP 15-GM1002	<i>Issues Management Processing of WIPP Forms</i>
WP 15-MD3102	<i>Event Investigation</i>

ISMS Integration

Core Function(s):	Provide Feedback and Continuous Improvement
Guiding Principle(s):	Oversight for Performance Assurance, Organizational Learning for Performance Improvement

4.14 Control of Records**ISO Requirements**

The organization shall establish and maintain records as necessary to demonstrate conformity to the requirements of its environmental management system and of this International Standard, and the results achieved. The organization shall establish, implement and maintain a procedure(s) for the identification, storage, protection, retrieval, retention and disposal of records. Records shall be and remain legible, identifiable and traceable.

WIPP System

The following records demonstrate conformity to this EMS and the international standard; and the results achieved from implementing the WIPP EMS.

- Reports for EMS audits and surveillances performed under the MOC QA independent assessment program and those performed by the international standard registrar
- Records of corrective actions associated with the above audits and surveillances
- Records of the EMS annual management review
- Declaration(s) of conformance with DOE Order 436.1

Records, including environmental records, are identified and managed according to WIPP's records management program and procedures. The program establishes the actions that assure records are identified, stored, protected, retrievable, retained and disposed in accordance with requirements. The procedures also establish that records remain legible, identifiable, and traceable.

Implementing Documents

CBFO MP 4.5	<i>Generating, Receiving, Storing, and Controlling Active CBFO Project Records</i>
CBFO MP 4.9	<i>Quality Assurance Records</i>
WP 15-RM	<i>WIPP Records Management Program</i>

ISMS Integration

Core Function(s):	Provide Feedback and Continuous Improvement
Guiding Principle(s)	Balanced Priorities, Operational Excellence

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4.15 Internal Audit

ISO 14001 Requirements

Internal audits of the EMS must be conducted at planned intervals to determine whether the system conforms to the ISO 14001 standard and has been properly implemented and maintained. Information on the results of audits must be provided to management. Audit programs must be planned, established, implemented, and maintained, and must include defining the responsibilities and requirements for planning and conducting audits, reporting results, retaining associated records, and determining audit criteria, scope, frequency, and methods. Selection of auditors and conduct of audits shall ensure objectivity and impartiality of the audit process.

WIPP System

Internal audits of the WIPP EMS for conformance to the ISO 14001 standard and implementation of the system are performed under the CBFO management assessment or oversight programs and/or the MOC's QA independent assessment program. The MOC program includes an audit of the full system once every three years and surveillances of the system in the intervening years.

Implementing Documents

CBFO MP 9.1	<i>Management Assessments</i>
WP 13-QA.03	<i>QA Independent Assessment Program</i>

ISMS Integration

Core Function(s):	Provide Feedback and Continuous Improvement
Guiding Principle(s):	Oversight for Performance Assurance, Organizational Learning for Performance Improvement

4.16 Management Review

ISO 14001 Requirements

Top management must review the EMS at planned intervals, to ensure its continuing suitability, adequacy, and effectiveness. Reviews shall assess opportunities for improvement, and the need for changes to the EMS including environmental policy objectives and targets. Input to the management review must include:

- *Results of internal audits and evaluations of compliance with legal and other requirements.*
- *Communication(s) from external interested parties, including complaints.*
- *Environmental performance of the organization.*
- *The extent to which objectives and targets have been met.*

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- *Status of corrective and preventive actions.*
- *Follow-up actions from previous management reviews.*
- *Changing circumstances, including developments in legal and other requirements related to environmental aspects.*
- *Recommendations for improvement.*

Outputs of the review must include decisions and actions related to possible changes to environmental policy, objectives, targets and other elements of the EMS, consistent with commitment for continual improvement. Records of management reviews must be retained.

WIPP System

CBFO and MOC top management conducts an annual EMS review to ensure the continuing suitability, adequacy, and effectiveness of the system. This is accomplished by the CBFO and MOC EMS Coordinators jointly preparing and providing CBFO and MOC top management an annual overview that evaluates the performance of the EMS over the prior year and includes recommendations for improvement for the current year. The overview must include inputs to the management review as required in the ISO standard.

As a result of the management review, the managers make decisions and provide direction for changes to the EMS (e.g., policy, objectives, targets, programs) in order to achieve continuous improvement.

Records of the management review, including decisions and actions, may be in one of the following formats:

- A formal EMS Annual Report created and maintained in the electronic document management system (Q&MIS), or
- Minutes when a review is accomplished via meeting(s) with top management.

Implementing Documents

DOE/WIPP 05-3318	Environmental Management System Description, sections 4.16 and 5.0
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ISMS Integration

Core Function(s):	Provide Feedback & Continuous Improvement
Guiding Principle(s):	Line Management Responsibility for Safety, Organization Learning for Performance Improvement

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5.0 EMS ROLES AND RESPONSIBILITIES

Roles and responsibilities are defined for implementation of the EMS as follows. The roles and responsibilities identified in section 5.3 apply to both MOC and CBFO personnel when they have work or oversight responsibilities in those particular departments or specific positions. Individual positions or organizations may have additional responsibilities related to environmental aspects/impacts defined in other implementing procedures.

5.1 All Employees

- Know where to find the WIPP Environmental Policy (DOE/WIPP-04-3310)
- Be mindful of the environmental effects of your actions.
- Avoid negative environmental impacts.
- Help achieve environmental targets:
 - Minimize personal waste generation by reducing materials used and recycling.
 - Minimize personal use of water and electricity to the extent possible.
- Comply with requirements; follow procedures.
- Look for, and implement, ways to improve protection of the environment.

5.2 WIPP Managers

- Review and provide input, as requested, to maintain currency of significant EMS Environmental Aspects and Impacts.
- Develop and incorporate into budget and work schedules (i.e., project and/or POW/POD schedules) targets and supporting activities for meeting WIPP's environmental objectives.
- Request/provide resources sufficient to achieve the environmental objectives and targets.
- Ensure that personnel whose work could result in significant environmental impacts are competent on the basis of their education, training, and/or experience.
- Ensure that environmental requirements and targets are communicated to their organization.

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- Ensure that programs/procedures are in place to address significant environmental impacts and that operations are performed in a consistent, environmentally responsible manner.

5.3 Department or Position Specific Roles and Responsibilities

Department or Specific Position	Roles and Responsibilities
Top Management (MOC President & Project Manager, CBFO Manager, or designees)	<ul style="list-style-type: none"> • Define WIPP environmental policy. • Communicate expectations for environmental excellence, implementation of the WIPP SSP, and adherence to this EMS. • Perform the annual EMS management review. • Assign action items to appropriate personnel, as necessary, to ensure continuous improvement of the EMS. • Appoint a management representative (the EMS coordinator) who has the responsibility and authority for ensuring that the EMS requirements are established, implemented, and maintained.
Business and Finance	<ul style="list-style-type: none"> • Advise control account managers of the requirement to include in their budget and work scope activities that: <ul style="list-style-type: none"> - manage significant aspects/impacts. - implement DOE HQ sustainability goals and WIPP environmental objectives and targets • Set, provide resources for, and implement departmental targets to support WIPP environmental objectives, as appropriate. • Track performance in project schedules or other work schedules for environmental targets, as appropriate. • Maintain and implement procedures that incorporate procurement of biobased, recycled content and less hazardous materials. • Facilitate meeting DOE HQ petroleum fuel reduction goals. • Find and utilize opportunities for reuse or recycling of property, equipment, materials. • Ensure energy efficiency and duplex settings are the default on network printers/copiers. • Provide information regarding progress towards achieving environmental targets that are tracked in project schedules to RES as requested.
Central Characterization Program	<ul style="list-style-type: none"> • Ensure waste shipped to WIPP conforms to regulatory requirements, including the WIPP Hazardous Waste Facility Permit, Nuclear Regulatory Commission/Department of Transportation requirements for transport, and Environmental Protection Agency requirements of 40 CFR Part 191/194. • Maintain and implement procedures (operational controls) for meeting regulatory requirements for incoming and outgoing (site-generated) wastes and hazardous materials. • Set, provide resources for, and implement departmental targets to support WIPP environmental objectives, as appropriate.
Communications	<ul style="list-style-type: none"> • Provide information to stakeholders and employees about environmental topics. • Incorporate information relating to WIPP environmental issues and EMS in WIPP internal communications (e.g., vendor orientation video, 2150, TRU TeamWorks). • Provide responses, in accordance with procedures, to members of the public or outside organizations that make inquiries related to environmental issues. • Provide EMS Coordinator notification of environmentally related inquiries from stakeholders and the responses as defined in Section 4.6

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Department or Specific Position	Roles and Responsibilities
Emergency Management	<ul style="list-style-type: none"> • Ensure environmental impacts are considered and planned for in emergency management programs. • Implement emergency management programs. • Test emergency response procedures in accordance with emergency management program. • Ensure emergency management planning meets ISO 14001 requirements.
EMS Coordinators (CBFO, MOC)	<ul style="list-style-type: none"> • Ensure EMS requirements are established, implemented, and maintained. • Prepare and provide annual overview to top management summarizing the suitability, adequacy, and effectiveness of the EMS. • Facilitate the process for identifying environmental aspects and impacts and determining their significance. • Facilitate implementation of the SSP through the EMS. • Provide support for updates to the SSP.
Engineering	<ul style="list-style-type: none"> • Plan, design and execute projects to meet environmental policy. • Lead preparation and update of the SSP. • Set, provide resources for, and implement departmental targets to support WIPP environmental objectives, as appropriate. • Facilitate the WIPP contribution to meeting DOE HQ sustainability goals (e.g., energy, fuel, water conservation, GHG reductions, and sustainable buildings).
Human Resources	<ul style="list-style-type: none"> • Maintain and implement the training program, including environmental content to meet compliance and ISO 14001 requirements. • Assure open door policy is in place for addressing employee concerns. • Include EMS content in initial and refresher GET, Hazardous Waste Worker, and Radiological Worker courses and other courses as appropriate. • Set, provide resources for, and implement departmental targets to support WIPP environmental objectives, as appropriate. • Include EMS content in Employee Handbook.
Information Technology and Information Resources Management	<ul style="list-style-type: none"> • Set, provide resources for, and implement departmental targets to support WIPP environmental objectives, as appropriate (e.g., electronics management, data center energy use).
Operations	<ul style="list-style-type: none"> • Set, provide resources for, and implement departmental targets to support WIPP environmental objectives, as appropriate. • Maintain and follow procedures to ensure compliance and protection of the environment in all areas of Operations.
Quality Assurance	<ul style="list-style-type: none"> • Maintain and implement programs that incorporate environmental requirements (e.g., audits/surveillances, issues management, corrective action tracking, and inspections).
Performance Assurance	<ul style="list-style-type: none"> • Implement and maintain programs for identification assessment of impacts and compliance with DOE Directives.
Safety & Health	<ul style="list-style-type: none"> • Integrate EMS into ISMS. • Facilitate meeting the DOE environmental goal for reducing hazardous material use.
Science and Development	<ul style="list-style-type: none"> • Ensure sustainability and compliance are integrated into science projects.
Stoller	<ul style="list-style-type: none"> • Implement and maintain document control and records management systems to meet ISO 14001 requirements. • Set provide resources for, and implement departmental targets to support WIPP environmental objectives, as appropriate.

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Department or Specific Position	Roles and Responsibilities
Security	<ul style="list-style-type: none"> • Include Environmental Policy and EMS awareness in contractor orientation. • Implement required inspections.
RES	<ul style="list-style-type: none"> • Facilitate process for identification and determining significance of environmental aspects and impacts. • Provide support for preparation, update, and implementation of the WIPP SSP. • Monitor environment, effluents, and emissions. • Set, provide resources for, and implement departmental targets to support WIPP environmental objectives as appropriate • Facilitate meeting environmental compliance requirements. • Secure and maintain required environmental permits and compliance certification. • Implement TRU waste acceptance and waste confirmation programs. • Review, and communicate to affected organizations, new or changed environmental requirements (e.g., legal, regulatory, DOE). • Integrate EMS into ISMS. • Request the necessary resources to administer the EMS. • Evaluate compliance with legal requirements.

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6.0 CRITERIA FOR DETERMINATION OF SIGNIFICANCE OF IMPACTS

Frequency, Severity, Legal, and Stakeholder Concerns scales are assigned to aspects/impacts based on qualitative judgment. These scales are outlined in figure 6.0-1.

Criteria	Scale	
Severity (S)	5	High (Severe/widespread damage)
	4 or 3	Medium (moderate /limited damage)
	2 or 1	Low (minor, little, or no damage)
Legal Implications (L) ¹	5	High (permit violation, potential NOV/CO)
	4 or 3	Medium (compliance actions are required)
	2 or 1	Low (below regulatory thresholds or not regulated)
¹ Aspects covered by DOE requirements must have a minimum score of 3.		
Stakeholder Concerns (SC)	3	High (expressed significant concerns)
	2	Medium (expressed some)
	1	Low (expressed minimum or none)
Frequency Range (F) Frequency of activity which has potential to generate impact	3	Daily to Continuous
	2	Weekly to Monthly
	1	Annual to Occasional

Figure 6.0-1, Significance Ranking Criteria for Environmental Aspects/Impacts

The significance score for each aspect is determined using the following formula:

$$\text{Significance Score} = (\text{S} + \text{L} + \text{SC}) \times \text{F}$$

A significant aspect/impact for WIPP is one with a score of greater than 20 or that top management designates as significant.

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REFERENCES	
DOCUMENT NUMBER AND TITLE	KEY STEP
Pub. L. 91-190, 42 USC §§4321-4347, <i>National Environmental Policy Act</i>	
Executive Order 13423, <i>Strengthening Federal Environmental, Energy, and Transportation Management</i> , January 24, 2007	1
Executive Order 13514, <i>Federal Leadership in Environmental, Energy, and Economic Performance</i> , October 5, 2009	2
DOE Order 436.1, <i>Departmental Sustainability</i>	3
DOE Order 450.2, <i>Integrated Safety Management</i>	
DOE Policy 450.4A, <i>Integrated Safety Management Policy</i>	
ISO 14001:2004(E), <i>Environmental Management Systems – Requirements with Guidance for Use</i>	
CBFO MP 3.1, <i>Corrective Action Reports</i>	
CBFO MP 4.1, <i>Preparation and Maintenance of CBFO Procedures</i>	
CBFO MP 4.2, <i>Document Review</i>	
CBFO MP 4.4, <i>Document Preparation and Control</i>	
CBFO MP 4.5, <i>Generating, Receiving, Storing, and Controlling Active CBFO Project Records</i>	
CBFO MP 4.9, <i>Quality Assurance Records</i>	
CBFO MP 4.12, <i>NEPA Compliance</i>	
CBFO MP 5.4, <i>Directives Compliance Program</i>	
CBFO MP 9.1, <i>Management Assessments</i>	
CBFO MP 10.2, <i>Surveillances</i>	
CBFO MP 10.3, <i>Audits</i>	
DOE/CBFO-94-1012, <i>CBFO Quality Assurance Program Document</i>	
DOE/CBFO-02-3219, <i>Technical Qualification Program Plan</i>	
DOE/CBFO-04-3299, <i>CBFO Contractor Oversight Plan</i>	
DOE/CBFO-09-3442, <i>CBFO Integrated Safety Management System Description</i>	
DOE/CBFO-09-3437, <i>Carlsbad Field Office Emergency Management Plan</i>	
DOE/WIPP-93-004, <i>WIPP Land Management Plan</i>	
DOE/WIPP-99-2194, <i>WIPP Environmental Monitoring Program</i>	
DOE/WIPP-00-3121, <i>Implementation Plan for 40 CFR Part 191, Subpart A</i>	
DOE/WIPP-02-3197, <i>Employee Concerns Program</i>	
DOE/WIPP-04-3300, <i>WIPP Project Control System Description</i>	
DOE/WIPP-04-3310, <i>WIPP Environmental Policy</i>	

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DOCUMENT NUMBER AND TITLE	KEY STEP
DOE/WIPP-05-3318, <i>EMS Description</i>	
DOE/WIPP-06-3339, <i>Groundwater Protection Program Plan</i>	
DOE/WIPP-08-3378, <i>WIPP Emergency Planning Hazards Assessment</i>	
DOE/WIPP-09-3441, <i>Functions, Responsibilities and Authorities Manual</i>	
DOE/WIPP-xx-varies, <i>WIPP Biennial Environmental Compliance Report (xx=year)</i>	
DOE/WIPP-xx-varies, <i>WIPP Annual Site Environmental Report (xx=year)</i>	
GET 210, General Employee Training	
WIPP Aspects and Impacts Matrix, WIPPNet	
WIPP Environmental Targets, WIPPNet	
<i>WIPP Site Sustainability Plan</i>	
NWP Employee Handbook	
MP 1.21, <i>Management Responsibility and Accountability</i>	
MP 1.24, <i>Commitment Tracking System</i>	
MP 1.28, <i>Integrated Safety Management</i>	
MP 1.29, <i>Mission, Goals, and Responsibilities</i>	
MP 1.4, <i>Release of Information to the Public</i>	
MP 1.41, <i>Issues Management WIPP Form</i>	
MP 1.45, <i>Regulatory Requirements Impact Assessments</i>	
MP 1.54, <i>Conduct of Operations Policy</i>	
MP 4.2, <i>Employee Concerns</i>	
MP 4.3, <i>Employee Communications</i>	
WP 02-1, <i>WIPP Groundwater Monitoring Program Plan</i>	
WP 02-2, <i>WIPP Discharge Permit 831 Monitoring Plan</i>	
WP 02-EC.08, <i>NEPA Compliance Plan</i>	
WP 02-EC.11, <i>WIPP Pollution Prevention Program Plan</i>	
WP 02-EC.13, <i>Environmental Compliance Walk Around and Assessment Plan</i>	
WP 02-EC3801, <i>Environmental Compliance Review and NEPA Screening</i>	
WP 02-PC.02, <i>Delaware Basin Drilling Surveillance Plan</i>	
WP 02-RC3111, <i>Information Repository</i>	
WP 04-CO.01, <i>Conduct of Operations</i>	
WP 04-CO.01-x, <i>Conduct of Operations Series (x=series number)</i>	
WP 09, <i>Conduct of Engineering</i>	

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REFERENCES	
DOCUMENT NUMBER AND TITLE	KEY STEP
WP 10-AD3029, <i>Calibration and Control of Monitoring and Data Collection Equipment</i>	
WP 12-9, <i>WIPP Emergency Management Program</i>	
WP 12-11, <i>Development and Maintenance of an Emergency Planning Hazards Survey</i>	
WP 12-12, <i>Development and Maintenance of an Emergency Planning Hazards Assessment</i>	
WP 12-13, <i>Development and Maintenance of Emergency Action Levels</i>	
WP 12-RP.01, <i>U.S. DOE WIPP Emergency Planning Hazards Survey Report</i>	
WP 12-VC.01, <i>Confirmatory Volatile Organic Compound Monitoring Plan</i>	
WP 12-VC.03, <i>Hydrogen and Methane Monitoring Plan</i>	
WP 13-1, <i>Nuclear Waste Partnership LLC Quality Assurance Program Description</i>	
WP 13-QA.03, <i>Quality Assurance Independent Assessment Program</i>	
WP 13 QA3004, <i>Nonconformance Reporting</i>	
WP 13-QA3007, <i>External Oversight Activities</i>	
WP 14-TR.01, <i>WIPP Training Program</i>	
WP 15-2, <i>NWP Management Control System Description.</i>	
WP 15-GM.03, <i>Integrated Safety Management System Description</i>	
WP 15-GM1001, <i>Root Cause Analysis</i>	
WP 15-GM1002, <i>Issues Management Processing of WIPP Forms</i>	
WP 15-MD3102, <i>Event Investigation</i>	
WP 15-PA1000, <i>Regulatory Requirements Impact Assessment Process</i>	
WP 15-PA1002, <i>Directives Management</i>	
WP 15-PA3000, <i>Standards/Requirements Identification Document</i>	
WP 15-PS.2, <i>Procedure Writer's Guide</i>	
WP 15-PS3002, <i>Controlled Document Processing</i>	
WP 15-PS3103, <i>Document Distribution</i>	
WP 15-RM, <i>WIPP Records Management Program</i>	